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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 047,272	01/14/2002	Bum-Yeul Park	SAM-0291	4505

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EXAMINER

LATTIN, CHRISTOPHER W

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,272

Applicant(s)

PARK, BUM-YEUL

Examiner

Christopher W Lattin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kornrumpf (U.S. Patent 5,345,205).

Kornrumpf teaches a packaging structure, such as a TCP or COF, for packaging a plurality of semiconductor chips 120, the packaging structure comprising a film 130, which is comprised of an insulating film 132 and 136 and a conductive pattern 134 formed on the surface of the insulating film on which the plurality of semiconductor chips are mounted, wherein the film is folded in a predetermined direction by 180° two or more times so as to package the plurality of semiconductor chips in one package such that at least one semiconductor chip is interposed between surfaces of the film and is adhered by a predetermined adhesive material. See especially column 9-column 12.

Claims 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kornrumpf (U.S. Patent 5,345,205).

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Kornrumpf teaches a method of packaging a device comprising: forming a film 130 by forming an insulating film 132 and 136, forming a conductive pattern 134 on the surface of the insulating film, mounting a plurality of semiconductor chips 120 on the film 130; folding the film in a predetermined direction by 180° two or more times such that at least one semiconductor chip 120 is interposed between surfaces of the film 130 and packaging the plurality of semiconductor chips in one package and is adhering by an adhesive material.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith et al. (U.S. Patent 5,224,023), Nicewarner, Jr. et al. (U.S. Patent 5,646,446), Nakatsuka (U.S. Patent 6,208,521), Naitoh et al. (U.S. Patent 5,441,474), and Kondo (6,469,377) teach methods of folding substrates with electronic components by 180° to obtain TCP or COF structures. Sato et al. (U.S. Patent 5,234,105), Tamai et al. (U.S. Patent 6,300,675), Tamai et al. (U.S. Patent 6,191,471) teach the art of folding substrates, which is similar in nature to the presently claimed method and structures.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Lattin whose telephone number is (703) 305-3017. The examiner can normally be reached Monday through Friday from 8:00 A.M. to 5:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached at (703) 308-3325. The fax numbers for this Group are (703) 872-9318 for responses to non-final actions and (703) 872-9319 responses to final actions.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

A handwritten signature in cursive script, likely belonging to John Niebling, the supervisor mentioned in the text.

CWL 
May 29, 2003